Date __/__/__
Page _____

4. Write a pgm to compute SGPA of student.

```
import java.util.scanner;
class Subject
{
        int subj_marks;
        int grade;
        int credits;
}
class Student
{
        String name;
        String usn;
        double SGPA;
        Scanner s;
        Subject subj[];   // array of objects.
        Student()
        {
            int i;
            subj = new Subject[8];
            for(i=0; i<8; i++)
                    subj[i] = new Subject();
            s = new Scanner(system.in);
        }
        void getStudentDetails()
        {
                System.out.print("Enter Student
                  name: ");
                name = s.next();
                System.out.print("Enter USN: ");
                usn = s.next();
        }
```

Date __/__/__
Page

```
void getMarks()
{
    S = new Scanner(System.in)
    for(int x = 0; x < 8; x++)
    {
        System.out.print("Enter details for ~~student~~ subject " + (i+1) + " :");
        System.out.print("Enter marks of student : ");
        subj[i].subj_marks = S.nextInt();
        System.out.print("Enter credits of subject : ");
        subj[i].credits = S.nextInt();
        if(subj[i].subj_marks >= 90)
        {
            subj[i].grade = 10;
        }
        else if(subj[i].subj_marks >= 80)
        {
            subj[i].grade = 9;
        }
        else if(subj[i].subj_marks >= 70)
        {
            subj[i].grade = 8;
        }
        else if(subj[i].subj_marks >= 60)
        {
            subj[i].grade = 7;
        }
        else if(subj[i].subj_marks >= 50)
        {
            subj[i].grade = 6;
        }
        else if(subj[i].subj_marks >= 40)
```

Date __/__/__
Page _____

```
        {
            subj[i].grade = 5;
        }
        else
        {
            subj[i].grade = 0;
        }
    }
}
void computeSGPA()
{
    double totalcredits = 0;
    double weightedSum = 0;
    for(int i = 0; i<8; i++)
    {
        totalcredits += subj[i].credits;
        weightedSum += subj[i].grade *
                       subj[i].credits;
    }
    SGPA = weightedsum / totalcredits;
}
void DisplayDetails()
{
    System.out.println("\n Student Details: ");
    System.out.println("Name : " + name);
    System.out.println("USN : " + usn);
    System.out.println("SGPA : " + SGPA);
}
}
public class StudentMain {
    public static void main(String[] args) {
        Student s1 = new Student();
        s1.getStudentDetails();
```

```
        s1.getMarks();
        s1.computeSGPA();
        s1.DisplayDetails();
    }
```

O/p:

```
Enter Student Name: Preethi
Enter USN: 1BM22CS207
Enter details for subject 1:
Enter Marks: 75
Enter Credits: 4
Enter details for subject 2:
Enter Marks: 78
Enter Credits: 4
Enter details for subject 3:
Enter Marks: ~~78~~ 94
Enter credits: 3
Enter details for subject 4:
Enter Marks: 67
Enter credits: 3
Enter details for subject 5:
Enter Marks: 87
Enter credits: 3
Enter details for Subject 6:
Enter Marks: 100
Enter credits: 1
Enter details for Subject 7:
Enter credits: 1
Enter Marks: 100
Enter details for Subject 8:
Enter Marks: 100
Enter Credits: 1
```

19/12/23

Date ___/___/___
Page _____

~~Quadratic~~

Student Details:

Name : Preethi

USN: 1BM22CS207

SGPA : 8.6